

CLAIMS:

1. Data communication means for communicating N-bit data, N being an integer with a value of at least three, the data communication means having a plurality of substantially parallel conductors comprising a first, a second and a third conductor for respectively communicating a first, a second and a third bit of the N-bit data, the first conductor having a first distance to the second conductor, and the second conductor having a second distance to the third conductor, the first distance being smaller than the second distance; said first distance being based on a first correlation between the first bit and the second bit and said second distance being based on a second correlation between the second bit and the third bit, characterized in that the first bit is a bit of a data word and the second bit is an encoding bit of a fault-tolerant encoding method for the data word.
2. Data communication means as claimed in claim 1, characterized in that the fault-tolerant encoding method is dual-rail encoding.
3. Data communication means as claimed in claim 1 or 2, characterized in that the data communication means further comprise a fourth conductor for communicating a fourth bit of the N-bit data word, the fourth conductor having a third distance to the third conductor based on a third correlation between the third bit and the fourth bit.
4. Electronic device comprising a first module and a second module, characterized in that the first module is coupled to the second module via data communication means according to any of the preceding claims.
5. Method for designing data communication means for communicating N-bit data, N being an integer with a value of at least three, the data communication means having a plurality of substantially parallel conductors comprising a first, a second and a third conductor for respectively communicating a first, a second and a third bit of the N-bit data, the first conductor having a first distance to the second conductor, and the second conductor having a second distance to the third conductor, the first distance being smaller than the

second distance;

characterized in that the method comprises the steps of:

calculating a first correlation between the first bit and the second bit;

calculating a second correlation between the second bit and the third bit;

5 determining the first distance based on the first correlation;

determining the second distance based on the second correlation; and

constructing a codebook of the N-bit data for calculating the first correlation
and the second correlation.

10 6. A method as claimed in claim 5, characterized in that the first bit is a bit of a
data word and the second bit is an encoding bit of a fault-tolerant encoding method for the
data word.

15 7. A method as claimed in claim 5 or 6, characterized by further comprising the
step of changing an order of the first conductor, the second conductor and the third conductor
to increase a sum of the first correlation and the second correlation.